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# Reading Instruction for Students with Emotional Disturbance: A Mixed-Methods Investigation

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**Abstract**

Although there is a substantial body of observation research investigating the manner in which reading instruction is provided to students with learning disabilities, there is little research in this area involving students with and at risk for emotional disturbance. The purpose of this investigation was to contribute to the limited corpus of observation studies investigating school-based practice in reading for this student population. In this investigation, 11 teachers from two states were systematically observed while providing reading instruction over the course of the 2017-2018 school year. Participating students were also observed over the course of the year and completed two standardized reading assessments at the beginning and end of this investigation. Teachers were also interviewed to identify contextual factors that promote or impede the provision of high quality reading instruction to this student population. Study findings suggest that teachers are in need of additional training, support, and resources to maximize instructional time. Students in this sample tended to make no or minimal progress in reading and were frequently observed displaying low levels of academic engagement across settings. Implications for school practice and areas for future research are discussed.

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emotional disturbance, behavior disorder, reading instruction, observation study

Students receiving special education services for emotional disturbance (ED) are associated with a number of concerning outcomes. For example, students with ED are more likely to (1) be removed from school for drugs, weapons, or serious bodily injury, (2) receive out-of-school suspensions or expulsions, and (3) receive in-school suspensions compared to all other student disability populations (U.S. Department of Education, 2018). Furthermore, a greater percentage of students with ED drop out of school compared to other students with disabilities (U.S. Department of Education, 2018). In fact, only 57.6% of students with ED graduated with a regular high school diploma during the 2014-2015 school year, which is less than the average (69.9%) for all students with disabilities (U.S. Department of Education, 2018). Considering these trends, it is not surprising that research suggests that their academic achievement decreases over time compared to standardized norms (Gage, Adamson, MacSuga-Gage, & Lewis, 2017). In fact, concerns regarding the school performance of students with disabilities has recently come to the attention of the Supreme Court of the United States (SCOTUS).

## *Free Appropriate Public Education*

The recent SCOTUS opinion in Endrew F. affirmed that the *de minimis* standard for a free appropriate public education (FAPE) is inconsistent with the intentions of special education law (Yell & Bateman, 2017). Effective instruction and specialized supports that confer benefit must be provided to students with disabilities through the implementation of an individualized education program (IEP). IEPs must be based on meaningful and appropriately ambitious annual goals, with services selected and implemented in a manner that insures sufficient progress towards their achievement. Although not explicitly stated by SCOTUS, it is recommended that districts employ research-based practices to improve the achievement of students with disabilities and to achieve FAPE mandates (Benner, Nelson, Ralston, & Mooney, 2010; Couvillon, Yell, & Katsiyannis, 2018; Levy & Vaughn, 2002).

## *Importance of Reading Proficiency*

Reading proficiency is critical to school and transition success (Ciullo, Ortiz, Al-Otaiba, & Lane, 2016). For example, as students' progress from grade-to-grade, the expectation to learn new information through reading increases

(Berkeley & Riccomini, 2013). Text-based instruction is emphasized in English Language Arts and content area classes, with students called upon to identify themes, synthesize information, make accurate inferences, and use text evidence to support discussions and writing (National Governors Association Center for Best Practices and the Council of Chief State School Officers, 2010; Swanson, Reed, & Vaughn, 2016). Conversely, deficient reading skills are associated with dropout rates (Hernandez, 2011; Jolivette, Stichter, Nelson, Scott, & Liaupsin, 2000), employment difficulties (Kutner et al., 2007; National Research Council and National Academy of Education, 2011), and lower levels of income (Snyder, de Brey, & Dillow, 2016).

## *Reading Achievement of Students with ED*

Data suggests that students with ED often have deficient reading skills, placing them at increased risk for school and transition failure. Data from the most recent administration of the National Assessment of Educational Progress provides evidence of the prevalence of reading difficulties among this student population: 32% of fourth graders and 39% of eighth graders with disabilities, a demographic category consisting of students with ED and students with learning disabilities (LD), scored at or above the basic level in reading (National Center for Education Statistics, 2018). Furthermore, research also suggests that many high school students with ED have reading comprehension skills comparable to students in the later elementary to middle grades (Wei, Blackorby, & Schiller, 2011). This finding is not surprising, as research also suggests that students with ED inadequately respond to reading intervention (Hagan-Burke et al., 2011; Trout, Nordness, Pierce, & Epstein, 2003), with smaller effects demonstrated on comprehension (e.g., the primary goal of reading) than foundational skills (e.g., phonemic awareness, decoding, fluency, vocabulary; McKenna, Shin, Solis, Mize, & Pfannenstiel, 2019). Inadequate response to intervention may be due to low levels of engagement and/or the performance of challenging behaviors, which can adversely affect skill acquisition (Gresham, 2015; Levy & Vaughn, 2002; Reid, Gonzalez, Nordness, Trout, & Epstein, 2004). In sum, many students with ED have deficient reading skills that adversely affect their ability to access instruction and contribute to difficulties with college and career readiness. A first step in better understanding the complexity of this problem is to better understand the current practices being utilized to teach reading to students with ED.

## *Previous Observation Studies*

Observation research of reading instruction can provide information on the degree to which instructional practices are informed by research and identify

teacher training, support, and resource needs (Ciullo, Ely, McKenna, Alves, & Kennedy, 2019; McKenna, Shin, & Ciullo, 2015). Observation research can also provide insight into the degree to which instruction aligns with educational policies and reforms (Vaughn, Moody, & Schumm, 1998). Although there is a substantial body of observation research on the provision of reading instruction to students with LD (see McKenna et al., 2015; Swanson, 2008; Swanson, Solis, Ciullo, & McKenna, 2012; Walker & Stevens, 2017), there appears to be few observation studies of reading instruction with samples of students with ED (Levy & Vaughn, 2002; McKenna & Ciullo, 2016; Vaughn, Levy, Coleman, & Bos, 2002). Vaughn et al. (2002) synthesized reading observation studies involving students with emotional and behavioral disorders (EBD) and LD. Sixteen studies met selection criteria, four of which included at least one student with EBD. Only one investigation (Olinger, 1987), a dissertation study, focused exclusively on students with EBD. Vaughn et al. (2002) reported difficulty determining the quality of reading instruction provided to students with EBD due to the small number of studies involving this student population. However, the researchers also noted concerns regarding the infrequent use of one-to-one instruction, absence of comprehension strategy instruction, a tendency to rely on independent seatwork, and use of instructional time on non-instructional activities.

Levy and Vaughn (2002) observed six teachers, each from a different school, who provided reading instruction to students with EBD in grades 1-5 who were educated in self-contained classrooms. In this study, participating teachers were considered effective at teaching students with EBD by their school principals. The most commonly observed practices included worksheet-based activities and teacher management of student behavior during reading instruction. Comprehension strategy instruction, fluency activities, and positive feedback were observed infrequently. Levy and Vaughn (2002) reported that teachers lacked professional development in research-based reading instruction.

McKenna and Ciullo (2016) observed reading instruction provided to students with ED in grades 1-6 who attended a day and residential treatment facility. Five providers of reading instruction participated. Similar to previous observation studies, a significant amount of reading instructional time was spent on non-instructional activities such as managing student behavior and class transitions. Activities in which students engaged in reading connected text (e.g., narrative, expository) were infrequently observed, as was comprehension strategy instruction. Reading fluency activities such as repeated text reading were not observed. Teachers also reported during interviews a need for professional development in comprehension strategy instruction and methods for improving student engagement.

In sum, there appears to be little observation research investigating the provision of reading instruction to students with ED. However, findings from this limited corpus of studies suggest that this student population may receive insufficient opportunities to develop reading skills and that teachers are in substantial need of training, support, and resources to maximize the effectiveness of instructional time. This finding is concerning because the instructional quality has an effect on academic performance (see Archer & Hughes, 2011; Vaughn et al., 2002). Although data suggests that students with ED have deficient reading skills (National Center for Education Statistics, 2018; Wei et al., 2011), less is known of how school practice in reading instruction is operationalized for these students. Presently, it appears that only one observation study (McKenna & Ciullo, 2016) has been conducted since the reauthorization of the Individuals with Disabilities Education Act (IDEA; 2004), which emphasized student access to research-based instructional practices and teacher access to professional development in such practices.

## *Conceptual Framework*

The empirical findings from observation studies of reading instruction (Levy & Vaughn, 2002; McKenna & Ciullo, 2016; Vaughn et al., 2002) and reading intervention research (Benner et al., 2010; McKenna et al., 2019; Scammacca, Roberts, Vaughn, & Stuebing, 2015; Wanzek, Wexler, Vaughn, & Ciullo, 2010) framed the conceptualization of this mixed-methods investigation. Being sensitive to the diverse needs and complexities faced by many students, we carefully conceptualized the descriptors of our participants with valid and reliable measures of behavior (Briesch, Chafouleas, & Riley-Tillman, 2010; Reynolds & Kamphaus, 2015) and reading (MacGinitie, MacGinitie, Maria, Dreyer, & Hughes, 2007; Wagner, Torgesen, Rashotte, & Pearson, 2010). These measures further contextualize the findings for research questions associated with observed instruction and student behavior. Utilizing an observation instrument grounded in the findings from previous intervention research (Edmonds & Briggs, 2003). Categories and subcategories of instructional components were coded by trained observers to ascertain the type and amount of reading instruction and levels of student engagement were observed and coded. Investigating the variables of reading and behavior may provide further insight to effective ways to successfully intervene and remediate reading problems for students with ED. And finally, we conceptualize the investigation taking into account the framework of services and supports that promote academic and behavioral progress and addresses the needs of individual students as provided by the IEP.

### *Purpose and Research Questions*

The purpose of the current investigation was to add to the limited observation research on reading instructional practices provided to students with and at risk of ED. At this time, we are aware of only one reading observation study involving students with ED that has been published since 2002 (McKenna & Ciullo, 2016). This most recent study did not include student reading and behavioral data, which would have provided additional description of student participants and indicated the degree to which students were positively engaged during reading instruction and benefited from school practice. We included reading and behavioral measures in this investigation to address this gap. In addition, we completed teacher interviews to identify and describe the challenges and successes experienced by providers of reading instruction, as well as contextual factors that promote or hinder the provision of reading instruction to this student population. Considering the importance of reading proficiency, mandates related to student access to research-based instruction, heightened expectations for FAPE, and the dearth of observation research, a study of this nature is warranted. The current investigation was guided by the following research questions:

1. To what extent is allotted reading instructional time spent on non-instructional activities?
2. What reading instructional practices do teachers use when providing instruction to students with and at risk of ED?
3. To what extent are students with and at risk for ED engaged during reading instruction?
4. To what degree do students benefit from reading instruction provided under typical school conditions?
5. What are the perceived barriers and facilitators of providing high quality reading instruction to students with and at risk for ED?

## Method

### *Participants and Setting*

A purposive sampling procedure (e.g., participants meeting specific criteria were recruited; Miles & Huberman, 1994) was used to identify providers of reading instruction assigned to teach at least one student with or at risk for ED in grades 1-6 in a school-based setting. Residential schools and psychiatric settings were ineligible for consideration because we were interested in the provision of reading instruction in less specialized school settings than investigated in the most recently published observation study (e.g., McKenna & Ciullo, 2016).

*Participating school districts.* The Executive Director of a collaborative special education consortium in the northeast and the superintendents of four public school districts (three in the northeast, one in the midwest) were contacted via email regarding their interest in participating. The collaborative special education consortium and three of the four school districts agreed to participate in the study. The special education consortium was supported by nine public school districts and educated approximately 370 students in grades pre-K to adult, all of which received special education services. The majority of students were Caucasian (77%). Information on percentage of students who were economically disadvantaged and classified as an English Language Learner (ELL) was unavailable. The special education consortium consisted of approximately seven schools and programs offering a variety of services to students with significant social, behavioral, and academic needs. District #1 was located in a suburban community in the northeast and educated approximately 4,600 students in grades pre-K to 12. The majority of students (72%) were Caucasian, 26.4% were economically disadvantaged, 15.7% received special education services, and approximately 7% were classified as an ELL. District #2 was a suburban district from the northeast with approximately 13,000 students. The majority of students were Caucasian (63%), 9.3% were economically disadvantaged, 20% received special education services, and 7% were ELLs. District #3 was located in a rural area of the midwest and educated approximately 6,200 students. The majority of students were Caucasian (87%), 33% were economically disadvantaged, 12.5% received special education services, and 1.7% were ELLs. The Executive Director of the collaborative special education program and the Superintendents from each of the three districts permitted the researchers to contact principals in their district/program to determine their interest in participating. Consent was obtained from the principal of a collaborative day school program for students with EBD from the education consortium and three public school principals (two from the northeast).

*Participating schools.* Data was collected in three schools located in a northeastern state and one school in a midwestern state. School #1, located in the northeast, was a substantially separate collaborative school for students with emotional and behavioral disabilities in grades K through six. The school had approximately 42 students, the majority of which were Caucasian and in the upper elementary grades. Students were enrolled in one of 19 school districts from two states and assigned to this school due to the severity of their learning and behavioral difficulties (e.g., IEP teams determined this setting was the least restrictive environment [LRE]). The school was staffed by six teachers, nine paraprofessionals, a literacy specialist, and related service providers

such as a social worker, a speech and language pathologist, an art therapist, and an occupational therapist. The school had school-wide expectations for student behavior but did not have a tiered system of academic and/or positive behavior supports. The school also did not have a consistent school-wide system for reinforcing student behavior. Furthermore, this school did not adopt a reading program or literacy curriculum. Teachers independently made decisions regarding the content and curriculum they taught.

School #2 was a K-5 public school located in District #1. Approximately 300 students were enrolled, 75% of which were Caucasian. Twelve percent of students received special education services, 5% were classified as an ELL, and 36% were considered economically disadvantaged. In regards to state accountability, the school was considered not in need of assistance or intervention. This school had school-wide expectations for student behavior but did not have a tiered system of academic and/or positive behavior supports. However, it did have a self-contained classroom that was used to support students with ED, some of whom also spent time in general education classrooms. This school did not adopt a reading program or literacy curriculum. Teachers independently made decisions regarding programs and curriculums they used, although curriculums were required to align with state frameworks.

School #3 was a K-5 public school located in District #2. Approximately 460 students were enrolled, 72% of which were Caucasian. In this school, 17% received special education services, 7.5% were classified as ELL, and 4.5% were considered economically disadvantaged. This school was not assigned an accountability rating by the state due to its participation in a new assessment system. This school had school-wide expectations for student behavior and used a variety of push in and pull out supports for students with disabilities. This school adopted a district wide literacy curriculum that was developed by curriculum coordinators and aligned with state frameworks. This school also used a variety of reading programs (e.g., Read Naturally [Read Naturally Inc., 2016], Wilson Reading [Wilson, 1988], Fundations [Wilson, 2002], etc.) that aligned with student needs (e.g., phonemic awareness, decoding, fluency, comprehension).

School #4 was a grade 4-6 public school located in District # 3. Approximately 540 students attended the school, 88% of which were Caucasian. In this school, 15% received special education services, 1.3% were classified as ELL, and 38% were considered economically disadvantaged. This school had previously implemented tiered system of positive behavior support and had received state recognition but did not currently have consistent systems in place or a structured system of interventions. In addition, teachers had not all been trained in models of tiered positive behavior support. However, the district had created a specific model of tiered academic support for reading intervention for students based on multitiered

systems of support framework. This school adopted a district wide literacy curriculum that emphasized independent reading, collaborative literacy circles, and student completion of online comprehension assessments. This curriculum aligned with state frameworks.

## Providers of Reading Instruction

A total of 11 providers of reading instruction consented, six of which were from the midwest. At school #1 (day school in the northeast), a classroom teacher assigned to teach students in the fourth grade and the literacy specialist participated. The literacy specialist provided core reading instruction in two classrooms and one-to-one pull out intervention. At school #2 (suburban district, northeast), a fourth-grade general education teacher and a fifth-grade general education teacher participated. In school #3 (suburban district, northeast), a special education teacher assigned to support students with disabilities in the elementary grades participated. This teacher provided push in support (e.g., one teach, one assist model of co-teaching) in two general education classrooms and provided pull out intervention to two small groups that included students with ED. In school #4 (rural district, midwest), six general education teachers participated, two each of whom were assigned to grades 4, 5 and 6. Table 1 provides a summary of teacher demographics.

## Student Participants

Nineteen students with or at risk for ED with informed parental consent and student assent participated. Thirteen of these students received special education services for ED. In this study, at-risk status was defined as having three or more disciplinary referrals in the last year or scoring in the at-risk range on a standardized behavioral assessment. Of the six students considered at risk, one student received special education services for a learning disability (LD), four had a 504 plan, and one was being evaluated for special education services for ED. Students were in the following grades: two in third, nine in fourth, three in fifth, and five in sixth. Students ($n = 13$; 68.4%) were predominately male and Caucasian ($n = 15$; 78.9%). All of the students receiving special education services had at least one IEP goal for reading. Table 2 reports student demographic characteristics.

## Instrumentation

The following data sources were employed in this investigation: observations of teacher reading instructional practices, student behavioral and reading data, and teacher interviews.

**Table 1.** Teacher Demographic Information.

| | |
|---|---|
| Gender | |
| Male | 1 |
| Female | 10 (90.9%) |
| Ethnicity | |
| White | 11 (100%) |
| African American | |
| Black | |
| Asian | |
| Other | |
| Highest degree | |
| Bachelors | 2 (18.1%) |
| Masters | 8 (72.7%) |
| Education specialist | 1 (18.1%) |
| Certifications | |
| General education | 9 (81.8%) |
| Special education | 2 (18.1%) |
| Reading specialist | 2 (18.1%) |
| Years teaching | |
| | 7.63 (6.83) |

*Note.* The mean and standard deviation is reported for years teaching.

*Teacher observations.* Teacher observations were completed using the *Instructional Content Emphasis—Revised* (ICE-R; Edmonds & Briggs, 2003). The ICE-R provides a detailed description of reading instructional practices recommended by research reviews, with practices grouped by main instructional components (e.g., word/study/phonics, comprehension) and subcomponents (e.g., teaches letter/sound relationships, prior knowledge and predicting). For example, an instructional event in which a teacher was observed providing guided practice in the "get the gist" comprehension strategy (see Klingner, Vaughn, Boardman, & Swanson, 2012), would be assigned "Comprehension" as the primary instructional category and "Comprehension Strategy Instruction/Use" as a subcategory. The ICE-R also provides information on non-instructional time (e.g., observed events that are not reading instructional), materials used (e.g., manipulatives, worksheets and workbooks, textbasal) and student grouping methods (e.g., whole group, small group, individualized). Content validity was established using a multistep process that included a comprehensive literature review and expert panel review (see Swanson et al. [2012] for a detailed description). The ICE-R has been used in previous reading observation studies investigating resource room instruction

**Table 2.** Student Demographics.

| Student | Age | Grade | Gender | Ethnicity | Disability | IEP reading goal |
|---|---|---|---|---|---|---|
| NE state day school | | | | | | |
| #1 | 12 | Sixth | M | C | ED | Y |
| #2 | 12 | Sixth | M | C | ED | Y |
| #3 | 12 | Sixth | M | C | ED | Y |
| #4 | 10 | Fourth | M | C | ED | Y |
| #5 | 10 | Fourth | M | H | ED | Y |
| #6 | 9 | Third | M | C | ED | Y |
| #7 | 9 | Third | M | C | ED | Y |
| NE state Gen Ed | | | | | | |
| #8 | 11 | Fifth | M | C | ED | Y |
| MW state Gen Ed | | | | | | |
| #9 | 10 | Fifth | F | C | LD | Y |
| #10 | 10 | Fifth | F | C | 504 | N |
| #11 | 10 | Fourth | M | C | 504 | N |
| #12 | 10 | Fourth | F | H | ED | Y |
| #13 | 10 | Fourth | F | C | None/Eval | N |
| #14 | 10 | Fourth | M | C | ED | Y |
| #15 | 9 | Fourth | M | C | ED | Y |
| #16 | 9 | Fourth | M | B | 504 | N |
| #17 | 10 | Fourth | F | C | 504 | N |
| #18 | 11 | Sixth | M | C | ED | Y |
| #19 | 11 | Sixth | F | B | ED | Y |

*Note.* M = male; F = female; C = Caucasian; B = Black; ED = emotional disturbance; LD = learning disability; Y = yes; N = no; Eval = special education evaluation in process.

for students with LD (Swanson & Vaughn, 2010), response to intervention practices (Swanson et al., 2012), instruction provided to students with ED who attended a day and residential treatment program (McKenna & Ciullo, 2016), and instruction provided to fourth and fifth graders with LD who attended low SES schools (Ciullo et al., 2019). An addendum to the ICE-R (Ciullo et al., 2019) was also used in this study to obtain information on teacher use of text reading engagement methods (e.g., teacher use of supported oral reading, silent reading, round robin). Furthermore, additional observation codes were created to account for instances in which teachers used reading instructional time to teach skills that focused on improving student engagement and behavior during reading instruction (e.g., goal setting, functional communication training).

*Behavioral measures.* The Teacher Rating Scales (TRS) from the *Behavior Assessment System for Children, Third Edition* (BASC-3; Reynolds &

Kamphaus, 2015) and *Direct Behavior Ratings* (DBR; Briesch et al., 2010) were employed in this investigation. The TRS is a standardized behavioral assessment that provides information on student problems and adaptive behaviors. In this study, the TRS was used to describe our student participant sample. Test–retest reliabilities range from .77 to .90 and coefficient alpha reliability range from .81 to .96. Data on student performance of disruptive behaviors and academic engagement was collected using DBR, which has a research base supporting its use as a behavioral progress monitoring measure (Miller, Patwa, & Chafouleas, 2014). In this investigation, we used the DBR to estimate the degree to which students with and at risk for ED with consent and assent were accessing reading instruction in typical school conditions.

*Reading measures.* Two standardized reading measures were employed: *Test of Silent Reading Efficiency and Comprehension* (TOSREC; Wagner et al., 2010) and the *Gates-MacGinitie Reading Test* (MacGinitie et al., 2007). The TOSREC is a timed reading fluency and comprehension assessment and has alternative form coefficients ranging from .84 to .95. The Gates-MacGinitie is a standardized reading assessment that includes subtests in vocabulary knowledge and reading comprehension. Test–retest coefficients are approximately .90, depending on the form and the grade level that is administered.

*Interviews.* Upon the completion of observations, each consenting provider of reading instruction was interviewed. Interviews were conducted at the end of the study to make certain that interviews did not influence teacher instructional decision making. Interview questions were designed to develop an understanding of contextual factors that may promote or impede the provision of high quality reading instruction to students with and at risk for ED. Specific questions also targeted the manner in which teachers planned and adapted reading instruction for this student population. Interview questions are reported in Table 3.

## Procedures

*Observer training.* The first author, who has extensive experience in the use of the ICE-R and reading observation research, trained the second author and two researchers to conduct teacher observations. Each observer was deemed qualified to conduct observations due to their background in special education and reading instruction. Training consisted of a discussion of observation procedures (e.g., taking descriptive field notes, observation coding) and operational definitions for ICE-R domains and subdomains. The first author also modeled the coding procedure and explained coding decisions.

**Table 3.** Interview Questions.

| |
|---|
| 1. What research-based instructional practices do you use when providing reading instruction to students with and at-risk ED? |
| a. To what extent do you feel that you are using research-based reading practices with your students with and at risk for ED? |
| 2. What aspects of reading instruction for students with and at risk for ED do you feel most comfortable teaching? Which aspects do you feel least comfortable teaching? |
| 3. What barriers or areas of difficulty have you encountered during reading instruction with these students? |
| 4. What facilitators or things that leads to successful lessons have you encountered during reading instruction? |
| 5. How and why do you adapt reading instruction for students with and at risk for ED? |
| 6. What aspect of reading instruction or professional development would benefit you and your students for improving reading outcomes. In other words, what specific types of training do you need? |
| 7. What other supports and resources do you need to provide high quality reading instruction to students with and at risk for ED? |
| 8. Is there anything else about providing reading instruction to students with and at risk for ED that you think is important for educators to be aware of? |

Observers then independently coded two video recorded reading lessons, which were compared to a gold standard (Gwet, 2001) to establish interobserver agreement (IOA). IOA was calculated by hand using an exact agreement method (e.g., total number of agreements divided by the total number of items). Observers were considered trained upon obtaining 90% agreement on two consecutive training videos.

In regards to DBR, the research team discussed operational definitions for target behaviors and data collection procedures. In this study, two target behaviors were employed: academic engagement and disruptive behavior. The definition of academic engagement was adapted from the description provided by Shapiro (2004) and defined as the following: actively or passively participating in classroom activities. For example, the student may have been actively engaged in instruction, such as writing, raising his or her hand, answering a question, or talking about a lesson. The student may also have been passively engaged, such as listening to the teacher, reading silently, or looking at instructional materials. Disruptive behavior was defined as any student action that interrupts regular school or classroom activities. For example, the student may be out of his or her seat, fidgeting, interrupting other students, acting aggressively, or talking or yelling about things that are unrelated to classroom instruction. Examples and non-examples of both

target behaviors were also discussed. When rating a student on each of the behaviors, raters were asked to place a dot on a continuous line, indicating the proportion of time that the target behavior was observed during the specified period. As a qualitative guide, anchors were provided at 0%, 50%, and 100%. For example, if a rater observed that the student was academically engaged during two-thirds of the entire observation period, the rater would mark a dot between the sixth and seventh interval on the line for academically engaged to indicate 66%. The resulting mark indicated the rater's estimate of the frequency with which students engaged in the target behaviors. Data collectors were required to achieve an IOA of at least 80% during a practice observations session with an author. IOA during training was computed by dividing the smaller percentage score by the larger and multiplied by 100 (Gast, 2010). Once collectors achieved this criterion, data was collected with an author in target classrooms. IOA data was collected in the fall, winter, and spring. Although efforts were made to collect IOA data weekly, the research team was unable to do so consistently due to scheduling conflicts. If at any time data collectors' IOA fell below 80%, they were retrained until a minimum of 80% agreement was achieved with the author during a practice observation.

*Teacher observations.* Each consenting provider of reading instruction was observed at least once during the fall, winter, and spring. Observers sat in a location that was purposefully selected to minimize any potential distractions and took descriptive field notes to document instructional grouping, activities, and materials used when providing reading instruction to students with and at risk for ED. When students with and at risk for ED with informed consent and assent were not in the classroom but present at school (e.g., on a break, out of class due to behavioral issues), observers noted the time and continued to take descriptive field notes on teacher instructional behaviors. For the purpose of this study, data on teacher instructional behaviors is reported for those instances in which at least one student with and at risk for ED was present in the classroom. Class time in which no students with and at risk for ED were present was coded as time absent from instruction (e.g., non-instructional activities). In instances in which more than one instructional activity involving at least one student with and at risk for ED was occurring simultaneously (e.g., when teachers differentiated instruction), each activity was coded as a separate instructional event according to ICE-R conventions. As a result, the total number of coded observation minutes exceeds total observation time. Table 4 reports the number of observations conducted in each school and instructional setting.

**Table 4.** Summary of Observations.

| District | School | Teachers | Total settings | Total observations |
|---|---|---|---|---|
| | Day school NE | 2 | 9 | 46 (31 one-to-one) |
| #1 | Public elementary NE | 2 | 2 | 11 |
| #2 | Public elementary NE | 1 | 4 | 12 (7 pull out) |
| #3 | Public elementary MW | 6 | 6 | 26 |

*Note.* NE = northeast; MW = midwest.

*Student data collection.* In the fall, providers of reading instruction completed the age appropriate BASC-3 TRS (e.g., Child, Adolescent) for each participating student. During each scheduled teacher observation, at least one randomly selected student with and at risk for ED with consent and assent was observed using the DBR. At the end of each observation, observers estimated the percentage of class time the target students were performing disruptive behavior and displaying behaviors consistent with academic engagement. In the midwestern state, researchers conducted additional behavioral observations (e.g., only student observation data was collected).

The first and second researcher individually administered the TOSREC and Gates-MacGinitie in the fall and spring. Students completed the TOSREC and Gates-MacGinitie form that aligned with their grade (e.g., fourth graders took the version for fourth graders). When taking the Gates-MacGinitie, students were given as much time as they needed to complete each subtest. Students were also permitted to stop each subtest at any time. Students were also permitted to continue the assessment the next day if they requested. These procedures were used to lessen any stress or anxiety students may have experienced from taking this assessment as well as to be consistent with the assessment accommodations used with these students. Nonstandard administration procedures were not used with the TOSREC because this assessment is short in duration and only requires sentence reading.

*Interviews.* The first and second author conducted each interview. Teachers were not provided a copy of interview questions prior to interviews. The researchers first explained the purpose of the interviews, reminded teachers that they could refrain from answering any question for any reason, and that they could ask clarifying questions at any time. The researchers than asked each interview question in sequence, rephrasing questions when asked and asking clarifying questions when necessary (e.g., to obtain more detailed

information and representative examples). Each interview was audio recorded and then transcribed for the purpose of data analysis.

*Data analysis*. Descriptive field notes from teacher observations were coded according to ICE-R conventions. Reading observation data was calculated for all observations overall and by instructional setting. Descriptive statistics were calculated for duration of the lesson, instructional and non-instructional activities, time spent reading text, and specific instructional practices. Researchers also performed a frequency count of methods used to engage students in text reading (e.g., round robin reading, partner reading). To establish reliability, all descriptive field notes from observations were independently double coded and entered into the ICE-R coding form. Using an exact agreement method, initial reliability was 97.6%, with all agreements discussed until 100% agreement was achieved.

BASC-3 TRS data was entered into the online Q-global scoring program. TRS data was entered twice to ensure the accuracy of data entry. Percentiles were then calculated for Externalizing Problems, Internalizing Problems, Behavioral Symptoms Index, and Adaptive Skills using General Combined norms. Means and ranges were calculated for DBR data for each student with or at risk for ED. In instances in which students were observed in more than one instructional setting (e.g., core instruction, one-to-one pull out intervention), data on disruptive behavior and academic engagement are reported for each setting. Across all observations, 18.9% (18 observations) included a second observer to measure reliability through IOA on disruptive behavior and academic engagement. IOA was computed by dividing the smaller percentage score by the larger and multiplied by 100 (Gast, 2010). IOA for disruptive behavior was 92% and 88% of academic engagement. For the TOSREC and Gates-MacGinitie, raw scores were calculated and then converted to percentile ranks.

To analyze teacher interviews, the first and second author read each transcript to create an initial set of codes. Discussions occurred to develop a final set of codes with operational definitions, which were used in the analysis. Final codes were adaptations, relationships, challenges, knowledge of your students, flexibility, learning standards, family engagement, technology, curriculum, professional development, collaboration, resources, and expectations. All transcripts were then independently coded by the first and second author using this final set of codes. Both authors compared and contrasted all transcripts to identify emerging themes. Initial agreement was 98.1%. When disagreements occurred, the first and second author reread and recoded the transcripts and discussed themes and supporting representative teacher responses until 100% agreement was obtained.

## Results

A total of 95 observations totaling 4006 min of class time were completed. Upon completion of observation coding, 4866 min of instructional and non-instructional events were analyzed. A total of 121 student observations was completed using DBR (academic engagement, disruptive behavior). Fall and spring TOSREC scores were obtained for 11 students. Fall and spring Gates scores were obtained for 11 students. Below we provide answers to each of the research questions posed in this investigation.

### *RQ1. To What Extent Is Instructional Time Spent on Non-Instructional Activities?*

For all observations, 1019 min out of 4886 min (20.9%) of coded events were spent on non-instructional activities. Most frequently observed non-instructional events were managing student behavior (282 min; 5.8% of all coded time), class transitions (215 min, 4.4%), providing reinforcement/breaks to students (208 min, 4.3%), developing relationships/connecting with students (116 min, 2.4%), and logistical tasks (e.g., taking attendance, returning assignments to students; 70 min, 1.4%).

*General education classrooms.* Forty-two observations totaling 2131 min of class time were conducted in general education classrooms. Of the 2639 min of instructional events coded, 411 min (15.6%) were spent on non-instructional activities. Commonly observed non-instructional events included providing reinforcement/breaks (135 min, 5.1% of coded time), managing student behavior (112 min, 4.2%), and class transitions (106 min, 4%).

*Day school classrooms.* Fifteen observations totaling 753 min of class time were completed in day school classrooms (e.g., core reading instruction). Including simultaneously occurring events, 1078 min were coded, 298 (27.6%) of which were non-instructional events.

Commonly observed non-instructional events were providing reinforcement/breaks (64 min, 5.9%), managing student behavior (63 min, 5.8%), class transitions (57 min, 5.3%), and developing relationships/connecting with students (25 min, 2.3%).

*Day school pull out.* Thirty-one observations totaling 916 min of pull out one-to-one reading instruction were completed. No simultaneously occurring events were observed due to the setting being one-to-one instruction. Of the 916 min, 272 min (29.6%) were non-instructional events. Non-instructional

events observed included managing student behavior (98 min, 10.7%), developing relationships/connecting with students (91 min, 9.9%), transitions (41 min, 4.5%), and providing reinforcement (2 min, <1%).

## *RQ2. What Reading Instructional Practices Do Teachers Use When Providing Instruction to Students with and At Risk for ED?*

Table 5 summarizes observation coding for main instructional components for all observations in total. Observation data is also disaggregated for general education classrooms (without push in special education teacher support), day school classrooms, and day school pull out one-to-one settings. Table 6 provides information on text reading methods used by teachers in each observation in which student text reading was observed. Data is also disaggregated for the aforementioned instructional settings.

Overall, reading comprehension activities accounted for the greatest percentage of coded time (38.9%). Although comprehension strategy instruction and use (14.6) and reading comprehension monitoring (14.5%) were observed for similar percentages of coded time, there were differences between settings. Specifically, comprehension activities more frequently involved strategy instruction and use than comprehension monitoring (e.g., assessment of comprehension) in general education classrooms. Conversely, comprehension activities more frequently consisted of comprehension monitoring in day school classrooms and day school one-to-one intervention.

Direct vocabulary instruction was infrequently observed overall (1.3% of all coded time). Only 4 min of vocabulary instruction was observed in general education classrooms. When vocabulary instruction was observed, it tended to consist of teaching or practicing definitions (45 of 66 min of vocabulary instruction that was observed. Morphology, context clue strategy instruction or use, semantic word maps, and mnemonic-based instruction were not observed.

In total, 1390 min (28.6% of all coded time) of text reading was observed (e.g., minutes coded as text reading combined with minutes in which text reading was included as part of another instructional activity). The majority of this time consisted of students reading text (1131 min, 23.2% of all coded time). One-to-one supported reading and independent silent reading were most frequently observed. Teachers reading aloud text to students was observed for 259 min (5.3% of all coded time).

In general education classrooms, 984 min (37.2% of all coded time) of text reading was observed. The majority of text reading was completed by students (858 min, 32.5% of coded time). In this setting, independent silent reading was the most frequently observed text reading method. One-to-one and

**Table 5.** Instructional Components Observed in Reading.

| Instructional component | Total minutes (*n*) | % of total time | General education classrooms | % of total time | Day school Classrooms | % of total time | Day school one-to-one | % of total time |
|---|---|---|---|---|---|---|---|---|
| Comprehension | 1891 | 38.9 | 1259 | 47.7 | 390 | 36.2 | 240 | 26.2 |
| • Strategy instruction/use | 713 | 14.6 | 561 | 21.3 | 128 | 11.8 | 24 | 2.6 |
| • Reading comprehension monitoring | 708 | 14.5 | 408 | 15.4 | 156 | 14.4 | 142 | 15.5 |
| • Prior knowledge and predicting | 214 | 4.4 | 120 | 4.5 | 44 | 4.6 | 50 | 5.5 |
| • Other | 193 | 3.9 | 119 | 4.5 | 50 | 4.1 | 24 | 2.6 |
| • Listening comprehension monitoring | 63 | 1.3 | 51 | 1.9 | 12 | 1.1 | 0 | 0 |
| Text reading | 1067 | 21.9 | 658 | 24.9 | 174 | 16.1 | 219 | 23.9 |
| • Independent silent reading | 444 | 9.1 | 407 | 15.4 | 35 | 3.2 | 2 | <1 |
| • Supported oral reading | 355 | 7.3 | 125 | 4.7 | 52 | 4.8 | 162 | 17.7 |
| • Teacher reads aloud | 164 | 3.3 | 61 | 2.3 | 52 | 4.8 | 51 | 5.6 |
| • Teacher reads aloud, students read along | 62 | 1.2 | 36 | 1.3 | 22 | 2 | 4 | <1 |
| • Independent oral reading | 24 | <1 | 16 | <1 | 8 | <1 | 0 | 0 |
| • Other | 16 | <1 | 13 | <1 | 3 | <1 | 0 | 0 |
| • Choral reading | 2 | <1 | 0 | 0 | 2 | <1 | 0 | 0 |
| Writing or language arts | 396 | 8.1 | 198 | 7.5 | 154 | 14.3 | 7 | <1 |
| • Independent writing | 191 | 3.9 | 107 | 4 | 80 | 7.4 | 0 | 0 |
| • Shared writing | 127 | 2.6 | 30 | 1.1 | 57 | 5.3 | 7 | <1 |
| • Writing composition | 78 | 1.6 | 61 | 2.3 | 17 | 1.6 | 0 | 0 |
| Word study/phonics | 109 | 2.2 | 0 | 0 | 0 | 0 | 109 | 11.9 |
| • Application | 43 | <1 | 0 | 0 | 0 | 0 | 43 | 4.7 |
| • Letter/sound relationships | 29 | <1 | 0 | 0 | 0 | 0 | 29 | 3.2 |
| • Word reading | 27 | <1 | 0 | 0 | 0 | 0 | 27 | 2.9 |
| • Other | 9 | <1 | 0 | 0 | 0 | 0 | 9 | <1 |

*(continued)*

**Table 5. (continued)**

| Instructional component | Total minutes (*n*) | % of total time | General education classrooms | % of total time | Day school Classrooms | % of total time | Day school one-to-one | % of total time |
|---|---|---|---|---|---|---|---|---|
| • Irregular words | 1 | <1 | 0 | 0 | 0 | 0 | 1 | <1 |
| Direct vocabulary instruction | 66 | 1.3 | 4 | <1 | 4 | <1 | 58 | 6.3 |
| • Teach or practice definitions | 45 | <1 | 1 | <1 | 4 | <1 | 40 | 4.4 |
| • Examples or non-examples | 18 | <1 | 0 | 0 | 0 | 0 | 18 | 1.9 |
| • Discussion | 3 | <1 | 3 | <1 | 0 | 0 | 0 | 0 |
| Cognitive behavior therapy | 62 | 1.3 | 11 | <1 | 0 | 0 | 0 | 0 |
| Concepts of print | 57 | 1.2 | 0 | 0 | 57 | 5.2 | 0 | 0 |
| Self-monitoring | 55 | 1.1 | 55 | 2 | 0 | 0 | 0 | 0 |
| Self-monitoring and cognitive behavioral therapy | 44 | <1 | 39 | 1.5 | 0 | 0 | 0 | 0 |
| Goal setting | 37 | <1 | 3 | <1 | 0 | 0 | 0 | 0 |
| Functional communication training | 34 | <1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fluency | 14 | <1 | 10 | <1 | 0 | 0 | 4 | <1 |
| • Repeated reading | 10 | <1 | 10 | <1 | 0 | 0 | 0 | 0 |
| • Other | 4 | <1 | 0 | 0 | 0 | 0 | 4 | <1 |
| Social problem solving | 14 | <1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spelling | 5 | <1 | 0 | 0 | 0 | 0 | 5 | <1 |
| Oral language development | 5 | <1 | 5 | <1 | 0 | 0 | 0 | 0 |
| • Teacher initiated, structured opportunities | 4 | <1 | 4 | <1 | 0 | 0 | 0 | 0 |
| • Other | 1 | <1 | 1 | <1 | 0 | 0 | 0 | 0 |
| Alphabetic knowledge | 4 | <1 | 0 | 0 | 0 | 0 | 4 | <1 |
| Growth mindset | 3 | <1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Feelings check in | 3 | <1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Phonological awareness | 1 | <1 | 0 | 0 | 1 | <1 | 0 | 0 |

**Table 6.** Text Reading Method.

| Method | *N* | % of observations | Gen Ed | Day school | Day school pull out |
|---|---|---|---|---|---|
| One-to-one | 38 | 40 | 3 | 4 | 31 |
| Independent silent reading | 29 | 30.5 | 22 | 7 | 0 |
| Round robin | 8 | 8.4 | 4 | 4 | 0 |
| Small group | 5 | 5.3 | 3 | 1 | 0 |
| Partners | 4 | 4.2 | 4 | 0 | 0 |
| Choral | 1 | 1 | 0 | 1 | 0 |

*Note.* *N* refers to the total number of observations the practice was observed. Data disaggregated by setting is reported as frequency counts.

peer-mediated instruction (e.g., small group reading, partner reading) were infrequently observed. Teachers were observed reading to students for 126 min (4.7%). In day school classrooms, 172 min of text reading was observed (15.9% of all coded time). Independent silent reading was the most frequently observed text reading method. Students reading text was observed for 95 min (8.8%) and teachers reading aloud to students was observed for 77 min (7.1%). In day school pull out settings (e.g., one-to-one instruction), 218 min (23.8% of coded time) of text reading was observed. Student text reading was observed for 162 min (17.6%) and teacher text reading was observed for 56 min (6.1%).

## *RQ3. To What Extent Are Students with and At Risk for ED Engaged During Reading Instruction?*

Table 7 reports means for DBR disruptive behavior and academic engagement. In this sample, students with or at risk for ED who were provided reading instruction in general education classrooms tended to display higher rates of disruptive behavior compared to students in the day school settings (e.g., core instruction and one-to-one). With the exception of one student, means for disruptive behavior varied from 21.4% to 58.6% of observed general education class time. The highest means for academic engagement were observed in day school one-to-one instruction. Academic engagement varied in general education classrooms, with means tending to range from approximately 43% to 68%. Higher levels of disruptive behavior were observed for students at risk (M = 47.05%) in general education classrooms compared to students with ED (M = 37.5%) who received instruction in this setting. Higher levels

**Table 7.** BASC-3 and DBR Data.

| Student | Externalizing problems | Internalizing problems | Behavioral symptoms Index | Adaptive skills | # of times Observed using DBR | Disruptive behavior | | Academic engagement | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Range | Average | Range | Average |
| NE state Day school | | | | | | | | | |
| #1 | 99** | 95** | 99** | 1** | 5 (one-to-one) | 20 | 4% | 55 | 75% |
| #2 | 83 | 99** | 95** | 3* | 5 (one-to-one) | 0 | 0% | 10 | 69% |
| #3 | 93* | 63 | 93* | 1** | 4 (one-to-one) | 30 | 7.5% | 35 | 78.75% |
| #4 | 95** | 86* | 95** | 10* | 4 (one-to-one) | 40 | 18.75% | 80 | 58.75% |
| | | | | | 3 (CI) | 10 | 3.33% | 40 | 56.66% |
| #5 | 86* | 70 | 98** | 10* | 3 (CI) | 0 | 0% | 5 | 21.66% |
| #6 | 91* | 44 | 90* | 1** | 2 (one-to-one) | 0 | 0% | 5 | 92.5% |
| | | | | | 3 (CI) | 20 | 6.66% | 10 | 73.33% |
| #7 | 43 | 24 | 43 | 71 | 6 (one-to-one) | 0 | 0% | 25 | 86.66% |
| | | | | | 3 (CI) | 15 | 5% | 0 | 88.33% |
| NE state Gen Ed #8 | 88* | 75 | 91* | 1** | 4 (CI) | 0 | 0% | 55 | 26.25% |
| MW state Gen Ed | | | | | | | | | |
| #9 | 26 | 94** | 56 | 75 | 6 (CI) | 40 | 40% | 20 | 46.7% |
| #10 | 89* | 84* | 92* | 36 | 6 (CI) | 30 | 38.3% | 40 | 46.7% |
| #11 | 97** | 90* | 98** | 5* | 8 (CI) | 40 | 48.7% | 40 | 61.4% |
| #12 | 77 | 93* | 99** | 6* | 8 (CI) | 40 | 45% | 30 | 67.5% |
| #13 | 95** | 90* | 93* | 8* | 6 (CI) | 40 | 41.7% | 50 | 66.7% |
| #14 | 99** | 99** | 99** | 2** | 10 (CI) | 40 | 57% | 70 | 53% |
| #15 | 64 | 84* | 89* | 8* | 7 (CI) | 20 | 21.4% | 30 | 42.9% |
| #16 | 92* | 96** | 96** | 8* | 7 (CI) | 20 | 58.6% | 40 | 52.9% |
| #17 | 89* | 99** | 99** | 1** | 4 (CI) | 30 | 55% | 40 | 72.5% |
| #18 | 86* | 99** | 99** | 1** | 8 (CI) | 60 | 50% | 40 | 58.8 |
| #19 | 77 | 99** | 99** | 5* | 9 (CI) | 60 | 48.9% | 50 | 56.7% |

*Note.* BASC-3 = Behavior Assessment System for Children, Third Edition; DBR = Direct Behavior Ratings; NE = northeast; MW = midwest; CI = core instruction. BASC-3 scores reported as percentiles.

**Clinically significant on General Combined norms.

*At risk on General Combined norms.

of academic engagement were observed for students at risk (M = 57.8%) who were educated in general education classrooms than students with ED (50.7%) in these settings.

## *RQ4. To What Degree Do Students Benefit from Reading Instruction Provided Under Typical School Conditions?*

Table 8 reports reading assessment scores for fall and spring. Data is missing for seven participants due to students: moving out of district ($n = 2$), declining to complete assessments ($n = 2$), being in crisis at the time of administration ($n = 2$), and teacher belief that assessments were too difficult for the student to attempt ($n = 1$). Variability in fall student reading performance was observed in each setting. Fall TOSREC scores in the day setting ranged from 0 to the 63rd percentile and ranged from 1 to the 27th percentile in general education classrooms. Students tended to demonstrate no to minimal growth in reading as indicated by Spring TOSREC scores, with the percentile scores for 5 of 11 students with complete data (e.g., fall and spring scores actually declining.

Variability in Fall Gates scores was also found across settings. In the day setting, percentile scores for the Vocabulary subtest ranged from 0 to 53. Percentile scores for the Comprehension subtest were 1 for each student in this setting. However, it should be noted that students tended to spend minimal time on this subtest prior to stating they had finished. Students receiving reading instruction in general education classrooms had higher percentile scores in both subtests compared to day school students. However, students tended to display no to minimal growth over time as indicated by spring Gates scores.

## *RQ5. What Are the Perceived Barriers and Facilitators of Providing High Quality Reading Instruction to Students with and At Risk for ED?*

Analysis of interview transcripts revealed nine themes related to the provision of reading instruction to students with ED. Themes identified were: knowing your students, adjusting expectations, structured lessons and flexibility, interest in reading, resources, and collaboration.

### *Knowing Your Students*

All providers of reading instruction discussed the importance of having a comprehensive understanding of their students with ED. In general, teachers

**Table 8.** Reading Assessment Data.

| Student | TOSREC fall | TOSREC spring | Gates fall | Gates spring |
|---|---|---|---|---|
| NE state Day school | | | | |
| #1 | <55 (<1) | – | Vocab 354 (1)<br>Comp 353 (1) | – |
| #2 | 62 (<1) | 68 (1) | Vocab 389 (1)<br>Comp 353 (1) | 381 (1)<br>353 (1) |
| #3 | 77 (6) | 78 (7) | Vocab 401 (1)<br>Comp 353 (1) | 381 (1)<br>353 (1) |
| #4 | 81 (10) | 81 (10) | Vocab 478 (46)<br>Comp 384 (1) | 498 (56)<br>334(1) |
| #5 | – | – | – | – |
| #6 | 100 (50) | 81 (10) | Vocab 430 (25)<br>Comp 334(1) | 441 (25)<br>371 (1) |
| #7 | 105 (63) | 107 (68) | Vocab 462 (53)<br>Comp 333 (1) | 487 (63)<br>304 (1) |
| NE state Gen Ed | | | | |
| #8 | – | – | – | – |
| MW state Gen Ed | | | | |
| #9 | 77 (6) | 81 (10) | Vocab 482 (31)<br>Comp 481 (31) | 487 (30)<br>481 (24) |
| #10 | – | – | – | – |
| #11 | 91 (27) | 85 (16) | Vocab 445 (18)<br>Comp 500 (65) | 456 (21)<br>500 (55) |
| #12 | 87 (19) | 80 (9) | Vocab 485 (53)<br>Comp 497 (62) | 459 (23)<br>493 (49) |
| #13 | 69 (2) | 66 (1) | Vocab 437 (13)<br>Comp 464 (30) | 445 (14)<br>453 (15) |
| #14 | 74 (4) | Moved | Vocab 445 (18)<br>Comp 410 (2) | Moved |
| #15 | 91 (27) | 85 (16) | Vocab 515 (80)<br>Comp 519 (80) | 520 (75)<br>533 (81) |
| #16 | – | – | – | – |
| #17 | – | – | – | – |
| #18 | 80 (9) | 81 (10) | Vocab 510 (47)<br>Comp 475 (13) | 509 (40)<br>487 (20) |
| #19 | 66 (1) | Moved | Vocab 463 (7)<br>Comp 406 (1) | Moved |

*Note.* TOSREC = Test of Silent Reading Efficiency and Comprehension; NE = northeast; MW = midwest. TOSREC scores are presented as standard scores and percentiles. Gates scores are presented as extended scale scores and percentiles.

emphasized the importance of knowing students as an individual. For example, one teacher from a public school setting stated "I'm typically pretty good at figuring out who they are as a person and what is the right thing to do, or what's kind of going to cause them to have a disturbance in their emotions. So getting to know them on a personal level helps a lot." Teachers across school settings stated that understanding how the student's disability

adversely affected their behavior was essential to planning and adapting reading instruction. For example, "I try to remember the fact that sometimes we have to work through some other issues or things that are going on there and figure out how to solve those. Then the learning will come into place. So, figuring out that kiddo and figuring out what works best helps them to learn before trying to get the actual curriculum down." Having an understanding of a student's current level of performance in reading was also considered critical, as seven participants (64%) stated it was important to have students with ED read texts with appropriate readability levels in order to promote engagement and prevent the occurrence of problem behaviors.

### *Adjusting Expectations*

Ten (91%) providers of reading instruction talked about adjusting academic expectations for students with ED. In general, this involved lowering expectations for reading performance and work productivity. One teacher from a public school setting stated: "I kind of hold them accountable for the standards, obviously not as much as I do for my other students, but I do ask them to participate in all the mini lessons and all of the active engagement that I do with all of my other students." When adjusting expectations, teachers were concerned that their expectations may not be appropriately ambitious. For example, one teacher who taught in the day school stated: "It almost seems like I am not putting high enough expectations on them, or it is hard for me to measure if I am because I am just trying to get it out of them. I don't know if it is motivation or ability that I am struggling with." Teachers in public school settings had similar concerns. For example: "I think educators of students with ED fall into this all the time, into this readiness around things like reading. Well, I am not sure, we are working on basic regulation skills right now. We are exposing them to literacy block but we are not having them engage in it. Okay, well, yes you are working on that but there is no such thing as readiness for reading and that is not a standard that we apply to general education students at all. . . We have to find a way to make this accessible for them with endless modifications or different options and creativity." In regards to adjusting expectations, eight (73%) participants stated they shorten the amount of time or the number of pages they ask students with ED to read in a given lesson. For example: "I like to chunk what I expect them to complete in a certain class period and just give them a goal, you know, read this page and then you're done for the day and here's your reward." Teachers also commonly stated they lessen the difficulty of the texts they require students to read. For example: "In the past, I've had students, his ability was great, he was on grade level or above

grade level, but his behavior was so bad that he wasn't able to be in the group that was on his level."

### *Structured Lessons and Flexibility*

Nine (82%) participants discussed the importance of structured lessons. For example: "So like the schedule of what we are going to do and then the kids know what to expect. When I don't have a schedule, I notice they are like, wait, I thought I was done, now you want me to do another worksheet?" However, some teachers expressed difficulty determining the best lesson structure to use with students with ED: "Just having an understanding of the structure that we should be using to plan our lesson and when it comes specifically to students with those needs, I feel like we could use more."

Nine (82%) providers of reading instruction also spoke of the importance of being flexible. For example, a teacher in a public school setting elaborated on the importance of making effective adjustments to teaching practice in response to student behavior: "I guess you just plan and plan and plan and then just kind of figuring out where to veer off that plan when things don't go according, or you know something just doesn't mesh right or they don't react or are as interested or engaged as you thought they would be." The importance of incorporating student choice into lessons was also commonly expressed. For example: "If he wants to sit in another part of the room, fine. If he wants to read out loud with his para, fine. If he wants to type on the computer to write, by all means. Those are the things that I am very flexible with, that allow him to deal, to help him focus and get the work done."

### *Interest in Reading*

Nine (82%) participants stated developing an interest in reading was essential to successful reading instruction. For example: "Getting them interested and getting buy in. A lot of times they see reading as a pointless task that they have to get through. I like to bring them in and get them hooked." Participants commonly stated they attempt to incorporate student interests and student choice into reading instruction in an effort to develop interest. "They'll tell you they love to read graphic novels, so it's finding something that each kid likes and getting them interested in reading."

### *Resources*

Nine (82%) participants discussed how having sufficient and appropriate resources was essential to the success of reading instruction. Teachers in the

day school setting expressed concern with the absence of a core literacy curriculum: "If we had more programs, especially a core curriculum for the classroom, then I would be able to support the students better." Teachers in the day school setting also talked of how a lack of books adversely affected reading instruction: "I make my own little library and I know that my colleague is getting some guided reading materials together, but more resources like that that I can pull from are needed." Although three teachers in public school settings also expressed a need for additional materials, teachers in this setting more frequently spoke of a need for additional personnel than materials. For example: "In a perfect world, we would have more people in our building, like paras, and people we can call that can come in." Insufficient time to discuss students and plan instruction due to competing professional responsibilities was also commonly expressed by participants across settings: "The biggest one is just time. Time for planning. Time for consult, authentic observation of the student, to review data that they have, and even time to provide the service."

### *Collaboration*

Collaboration with other school-based professionals was considered essential to the provision of high quality reading instruction by eight (73%) participants. Collaboration was considered essential to identifying appropriate materials and instructional methods: "Just talking to other teachers has been helpful to get their opinion on what is the best practice, to keep up on different books and resource." Another teacher stated: "I think that getting more knowledge for myself, tips and tricks that other teachers have had success with or even little tweaks for things I can implement in the classroom." Overall, participants expressed concerns with the degree to which collaboration was occurring at their schools. A disconnect between different service providers was commonly expressed by teachers in general education settings: "Obviously with all the people coming in and out, that provide instruction for those students, there is no time, there is no regularly scheduled time to sit down and talk about them. Hey, how are they doing?" Another teacher from a general education setting stated: "I also have other special education students who have Title 1 support, so, that Title 1 teacher and myself can only be spread so thin and you need variety. It can't be the same kids every day and I really wish the paraprofessional and the therapeutic teacher were in some sense, there was some meeting time so we all could know, hey, these are the skills covered for the week." Teachers across settings talked of having to spend class time telling staff how to support students with ED: "I have to quickly teach the paraprofessional so they can go help, but that takes away

more time from instructing students." Skill limitations of paraprofessionals were also expressed: "Sometimes I am teaching and the para is there for the lesson but they are still not comfortable taking any of those therapeutic children and reinforcing the skill, the link portion of the lesson." Two teachers in a general education setting talked about a lack of coordination resulted in students missing instructional time due to earned breaks: "Their earned time, which is when they have their breaks throughout the day. They have them based on their goals for the day and that earned time happens at the start of our reading which is where the direct instruction, the bulk of it is, and that has been the number one issue."

## Discussion

The purpose of this study was to contribute to the limited corpus of observation studies investigating the provision of reading instruction to students with ED. We sought to describe instructional practice, student response to school practice, and identify contextual factors that influence the provision of reading instruction. Consistent with previous studies (Levy & Vaughn, 2002; McKenna & Ciullo, 2016; Vaughn et al., 2002), findings suggest that teachers are in need of additional training, support, and resources to maximize the effectiveness of allotted instructional time.

### *RQ1. Non-Instructional Time*

Overall, a significant amount of reading instructional time was spent on non-instructional activities, with higher percentages of non-instructional time observed during day school core reading instruction. Consistent with previous reading observation studies (Levy & Vaughn, 2002; McKenna & Ciullo, 2016; Vaughn et al., 2002), teachers were frequently observed managing student behavior, particularly in day school settings. This could be due to differences in symptom severity at the day school compared to other settings. It is also possible that a larger gap between student achievement levels and the tasks they were required to complete occurred in this setting. Although sample sizes (e.g., number of observations and teachers, total instructional time observed) varied across settings, it should be noted that the highest percentage of time managing student behavior was observed during one-to-one intervention. It is possible this was due to the expectations for work productivity in this instructional context. For example, students receiving one-to-one reading instruction are expected to be actively engaged and complete a series of tasks due to the lesson being specifically planned for them (e.g., each task is presented to the same individual student). Conversely, students

with ED may have less frequent opportunities to respond, lower expectations regarding active engagement, and receive less frequent task demands and teacher explicit feedback in general education classrooms due to the nature of whole group instruction. In essence, opportunities to respond, task demands, and teacher attention are dispersed among a greater number of students in general education settings compared to one-to-one instruction. However, findings suggest that teachers across settings were in need of assistance and support to increase the percentage of allotted reading instructional time spent on actual instruction.

## *RQ2. Reading Instructional Practices*

Comprehension activities were most frequently observed overall and across instructional settings. However, comprehension activities in day school settings more frequently involved assessment of reading performance rather than instruction in strategies that students can employ to improve comprehension. Similar patterns have also been found in observation studies investigating reading instruction in a residential and day treatment setting (McKenna & Ciullo, 2016) and supplemental intervention for students with LD in grades 3-5 (Swanson et al., 2012). In regards to the current investigation, a tendency to focus on comprehension assessment is not surprising as teachers in day school settings expressed a need for a core literacy curriculum, reading interventions, and reading materials in general. Explicit strategy instruction is an effective and recommended practice for improving the comprehension of low performing readers (Scammacca et al., 2015; Stevens, Park, & Vaughn, 2018; Wanzek et al., 2010). Considering the pervasive needs of students who are educated in substantially separate settings, it is essential that they have access to research-based instruction provided by teachers with sufficient expertise, access to necessary materials, and time to plan and discuss student response to instruction.

Vocabulary instruction was infrequently observed across settings, despite its importance to text comprehension and success in general education classes (Brownell, Sindelar, Kiely, & Danielson, 2010; Elleman, Lindo, Morphy, & Compton, 2009; Ford-Connors & Paratore, 2015). When vocabulary instruction was observed, teachers tended to employ ineffective methods (e.g., reading definitions; teaching dictionary-based definitions rather than student friendly definitions). Vocabulary instruction should incorporate a variety of research-based instructional methods and be ongoing. Discussion-based activities are an effective method for improving vocabulary knowledge (Elleman et al., 2009; Stahl & Vancil, 1986). Morphological-based instruction (e.g., the smallest unit of meaning within a word) can also improve

vocabulary knowledge and provide students skills they can apply to learn additional new words (Reed, 2008). Use of semantic word maps and mnemonic-based instruction are additional research-based methods for improving vocabulary knowledge (Bryant, Goodwin, Bryant, & Higgins, 2003; McKenna, Kim, Shin, & Pfannenstiel, 2017; Stahl & Fairbanks, 1986; Stahl & Vancil, 1986). The manner in which teachers engaged students in text reading also suggests the presence of a research to practice gap.

Instruction in general education classrooms and day school core reading classes tended to employ independent silent reading when requiring students with ED to engage in text reading. This reliance on independent reading suggests a lack of differentiation and explicit teacher instruction and feedback in these settings. Differentiated and explicit reading instruction are necessary to improve reading performance (Levy & Vaughn, 2002; McKenna et al., 2015; Vaughn et al., 2002). Although differentiated and explicit instruction was observed, it was most commonly observed during one-to-one instruction in the day school setting. However, as previously mentioned, comprehension activities were predominately assessment based rather than strategy instruction in this setting. Overall, partner and small group reading were infrequently observed in this investigation. This finding is also not surprising as teachers frequently expressed difficulties planning and managing student behavior during small group reading instruction and during reading instruction in general. It possible that these expressed difficulties may at least partially explain teacher reliance on independent silent reading rather than text reading methods that permit more frequent student–teacher interactions and peer interactions. Teachers also talked of challenges related to collaboration and resources (e.g., need for time discuss students and plan instruction; need for additional instructional support in the classroom), which may also explain teacher reliance on these practices.

## *RQ3. Student Engagement*

DBR data and teacher interviews suggest substantial difficulties promoting student engagement. Across settings, students with and at risk for ED tended to display low levels of academic engagement during reading instruction. Disruptive behavior was also a concern for some students, which can adversely affect skill acquisition (Gresham, 2015; Levy & Vaughn, 2002). Furthermore, teachers consistently reported difficulties planning and delivering reading instruction due to challenging behaviors. Carefully planned, sequenced, and delivered instruction based on research-based practices can improve student behavior (see Levy & Vaughn, 2002). Positive behavioral supports such as consistent and frequent reinforcement for on task behavior/

student effort and providing reinforcers identified in a preference assessment may also improve student engagement (McKenna & Bettini, 2018). Furthermore, research suggests that self-monitoring interventions that are complimented with contingencies for reinforcement can improve student behavior (Bruhn, McDaniel, & Kreigh, 2015). Function-based interventions may be an option for those students who require more individualized and intensive behavioral support (see Gage, Lewis, & Stichter, 2012).

### *RQ4. Response to Instruction*

In this investigation, students demonstrated minimal gains in reading fluency and comprehension. A number of factors may have contributed to student outcomes, including lost instructional time due to non-instructional events, students not accessing instruction due to low levels of engagement and the performance of challenging behaviors, use of ineffective instructional methods, insufficient collaboration and resources, and the inherent nature of providing reading instruction to a student population that is difficult to teach. DBR data suggests that students had difficulty accessing instruction across settings. Independent reading was commonly employed, which is an ineffective practice for struggling readers who display challenging behaviors. Teacher supported text reading was infrequently observed in general education classrooms and day school core instruction, as was partner reading. Teachers also infrequently provided explicit instruction in reading comprehension strategies and repeated reading instruction, which are effective at improving comprehension and fluency, respectively (McKenna & Bettini, 2018; Swanson, 1999; Wexler, Reed, Barton, Mitchell, & Clancy, 2018). In sum, reading data from this sample of students suggests a need for collaborative and sustained efforts to improve the quality of reading instruction and student ability to access it.

### *RQ5: Barriers and Facilitators*

Teachers identified a number of perceived barriers to the provision of high quality reading instruction for students with and at risk for ED. Time is required to plan and discuss the effectiveness of instructional practice. Planning discussions should focus on research-based reading instructional practices, positive behavior support strategies, the integration of such strategies in reading instruction, and effective adjustments to instruction. Teachers must also have access to research-based reading curriculums and programs, as well as a wide variety of texts to target student interests and current levels of performance. Similar to previous observation studies (Levy & Vaughn,

2002; McKenna & Ciullo, 2016; Vaughn et al., 2002), findings from this investigation suggest that teachers are in need of substantial support (e.g., professional development; coaching with performance feedback; consultation from a variety of professionals) and additional resources (time for planning, debriefing, and collaboration; research-based curriculum and intervention; engaging materials; reinforcers).

## *Implications for Practice*

Considering the expectation that IEPs are outcome-based (e.g., they must be reasonably conceived to confer appropriate benefit; Yell & Bateman, 2017), educators such as those in this investigation should be sufficiently supported in their unwavering efforts to teach a student population that has historically struggled in school. Student access to high quality instruction and support should be the highest priority. School leaders across the continuum of educational placement options are encouraged to consider the unique professional development, training, and resource needs of teachers who educate students with and at risk for ED (see Mitchell, Kern, & Conroy, 2019). Teachers of students with and at risk for ED may benefit from ongoing training and support (e.g., coaching with performance feedback; see Fallon, Collier-Meek, Maggin, Sanetti, & Johnson, 2015) in research-based reading instructional practices, positive behavior support strategies, and their integration into reading instruction. Furthermore, teachers require access to research-based curriculums and engaging materials, as well as sufficient time to collaborate, plan, and debrief reading instruction. During group discussions, teachers can share their "lessons learned" for what works for their students, particularly in regards to appropriate expectations, lesson structure, strategies for promoting engagement, and adjustments to teaching practice. It may also be advantageous to include a literacy specialist and a professional with expertise in positive behavior support strategies to support this work. Clearly, these aforementioned recommendations require a substantial commitment in the form of strong leadership and the allocation of resources.

## *Limitations*

Five limitations are associated with this investigation. First, only 11 teachers from two states participated. However, findings are consistent with previous research. We also repeatedly observed this sample of teachers over time in an effort to obtain as representative sample of their instructional practice as possible and supplemented this information with additional data sources. Second, reading assessments may not have provided an accurate representation of

student performance in at least some instances. For example, we used a non-standardized procedure to administer a reading assessment. Repeated measurement of reading performance using curriculum-based measurement (CBM) may have provided a better indication of student response to instruction and captured any variability in student performance over time. A measure of word reading was also not used in this investigation. Third, our sample of students may not be representative of the population of students with and at risk for ED. However, findings from student data are similar to other investigations and data focusing on the reading performance of this student population. Fourth, we did not interview other stakeholders such as administrators, parents/guardians, and students with and at risk for ED. Considering that some contextual factors identified in this study may have been beyond the control of teachers (e.g., resources, structures that promote collaboration), administrator perspectives may have provided insight into the manner in which schools were resourced and teachers supported (see Wijekumar, Beerwinkle, Harris, & Graham, 2019). Lastly, we were unable to make comparisons between students who receive special education services for ED and students who were considered at risk due to missing assessment data. However, missing data could be expected considering the student population and the challenges associated with educating them.

## *Future Research*

First, considering the limited number of studies overall and that fact that only one investigation in this area has been published since 2002 (McKenna & Ciullo, 2016), additional mixed-methods investigations of reading instruction for students with and at risk for ED are needed. Future investigations should consider the degree to which school practice achieves FAPE mandates for individual students, as indicated by student progress on ambitious and meaningful IEP reading goals. Second, considering what appears to be the myriad challenges associated with providing reading instruction to this student population, future research should identify exemplary models of school practice. These investigations can potentially identify the conditions necessary for students with ED to make meaningful progress in reading. Considering that students with ED are educated within the full continuum of placement options, model practices should be identified across school settings. Third, future observation studies should repeatedly assess student reading performance over time using CBM. Assessment should focus on student skills in phonological awareness, decoding, fluency, and comprehension. This data may not only give a more nuanced understanding of student reading performance and changes over time, but this data may provide a foundation for

collaborative efforts between researchers and practitioners to improve the quality of reading instruction and student engagement and response to instruction.

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